

What Is Claimed Is:

5 1. A computer implemented method for evaluating a user's information technology skills by having the user complete a practical exercise that is associated with one or more virtual machines, comprising:

Dub
A6
10 displaying to the user information that is associated with the practical exercise, wherein the information describes a task that the user is instructed to complete, and wherein the user uses one or more of the virtual machines to complete the task; and launching the one or more virtual machines so that the user can use the virtual machines to perform the task.

15 2. The method of claim 1, further comprising:
setting a timer to expire after a certain amount of time has elapsed;
waiting for the user to complete the practical exercise and/or for the timer to expire; and
evaluating how well the user performed the practical exercise.

20 3. The method of claim 1, wherein the act of evaluating how well the user performed the practical exercise comprises examining the state into which the user put one of the one or more virtual machines and comparing the state to a benchmark.

25 4. The method of claim 1, wherein each of the virtual machines comprises a disk image file, and the task requires the user to modify a particular file stored within one of the disk image files.

5. The method of claim 4, wherein the act of evaluating how well the user performed the practical exercise comprises examining the modifications made to the particular file to determine whether the particular file was modified correctly.

30 6. A computer implemented method for evaluating a user's information

technology skills, comprising:

accessing a test file comprising one or more exam items;

selecting one of the one or more exam items;

determining whether the selected exam item corresponds to a practical exercise;

and

presenting the selected exam item to the user, wherein, if the selected exam item is determined to correspond to a practical exercise, then the act of presenting the selected exam item to the user comprises launching one or more virtual machines that are associated with the practical exercise.

7. The method of claim 6, further comprising:

setting a timer to expire after a certain amount of time has elapsed;

waiting for the user to complete the exercise and/or for the timer to expire; and

evaluating how well the user performed the practical exercise.

8. The method of claim 6, wherein, if the selected exam item is determined to correspond to a practical exercise, then the act of presenting the selected exam item to the user further comprises displaying to the user information that is associated with the practical exercise, wherein the information describes a task associated with the exercise that the user is instructed to perform.

9. The method of claim 6, wherein each of the one or more virtual machines comprises a disk image file, and the task requires the user to modify a particular file stored within one of the one or more disk image files.

10. The method of claim 9, wherein the act of evaluating how well the user performed the practical exercise comprises examining the modifications made to the particular file to determine whether the particular file was modified correctly.

11. The method of claim 9, wherein the act of evaluating how well the user

performed the practical exercise comprises examining a file that the was not supposed to be modified in performing the practical exercise.

5 12. An IT skills evaluation system, comprising:
a storage medium;
a first software application stored on the storage medium for allowing multiple
virtual machines to run on a single computer system;
a second software application stored on the storage medium;
a disk image file stored on the storage medium, the disk image file being
10 associated with a virtual machine that is associated with a practical exercise; and
a processor for executing the first and second software applications, wherein the
second software application is operable to:

display to a user information that is associated with the practical
exercise, wherein the information describes a task associated with the exercise;
15 and

launch the virtual machine so that the user can use the virtual machine to
perform the task.

20 13. The system of claim 12, wherein the second software application is
further operable to:
set at timer to expire after a certain amount of time has elapsed;
wait for the user to complete the practical exercise and/or for the timer to expire;
and
evaluate how well the user performed the practical exercise.

25 14. The system of claim 12, wherein the second software application
comprises a test driver and a practical skills testing module (PSTM).

30 15. The system of claim 14, wherein the test driver is operable to:
read a test file that comprises one or more exam items;

select an exam item;
determine whether the selected exam item is associated with a practical exercise;
provide an exam item identifier to the PSTM if it is determined that the exam
item is associated with a practical exercise, wherein the exam item identifier identifies
the selected exam item; and
wait for a response from the PSTM after providing the exam item identifier to
the PSTM.

16. The system of claim 14, wherein the second software application
displays the virtual machine in a testing window provided by the test driver.

17. An information technology (IT) skills evaluation system for evaluating a
user's IT skills, comprising:

a test file comprising an exam item, wherein the exam item corresponds to a
practical exercise, and wherein the practical exercise is associated with one or more
virtual machines;

an exam item presenter that presents the practical exercise to the user, wherein
the exam item presenter comprises a virtual machine launcher that launches the one or
more virtual machines when the exam item is presented to the user; and

an exercise evaluator that evaluates how well the user performed the practical
exercise.

18. The system of claim 17, further comprising a storage medium that stores
a disk image file for each of the one or more virtual machines.

19. The system of claim 18, wherein the exercise evaluator evaluates how
well the user performed the practical exercise by examining at least one of the disk
image files.

20. The system of claim 19, wherein in examining the at least one disk

image file the evaluator checks a predetermined file stored within the disk image file to determine whether the user modified the file correctly.

21. A computer program product for evaluating a user's information technology skills by having the user complete a practical exercise, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

displaying to the user information that is associated with the practical exercise, wherein the information describes a task that the user is instructed to complete, and wherein the user uses one or more of the virtual machines to complete the task; and

launching the one or more virtual machines so that the user can use the virtual machines to perform the task.

22. The computer program product of claim 21, further comprising computer instructions for:

setting a timer to expire after a certain amount of time has elapsed;

waiting for the user to complete the practical exercise and/or for the timer to expire; and

evaluating how well the user performed the practical exercise.

23. The computer program product of claim 21, wherein the computer instructions for evaluating how well the user performed the practical exercise comprises computer instructions for examining the state into which the user put one of the one or more virtual machines and comparing the state to a benchmark.

24. The computer program product of claim 21, wherein each of the virtual machines comprises a disk image file, and the task requires the user to modify a particular file stored within one of the disk image files.

25. The computer program product of claim 24, wherein the act of

evaluating how well the user performed the practical exercise comprises computer instructions for examining the modifications made to the particular file to determine whether the particular file was modified correctly.

5 26. A computer program product for evaluating a user's information technology skills, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

 accessing a test file comprising one or more exam items;

 selecting one of the one or more exam items;

10 determining whether the selected exam item corresponds to a practical exercise;

 and

 presenting the selected exam item to the user, wherein, if the selected exam item is determined to correspond to a practical exercise, then the act of presenting the selected exam item to the user comprises launching one or more virtual machines that are associated with the practical exercise.

15

27. The computer program product of claim 26, further comprising computer instructions for:

 setting a timer to expire after a certain amount of time has elapsed;

20 waiting for the user to complete the exercise and/or for the timer to expire; and

 evaluating how well the user performed the practical exercise.

28. The computer program product of claim 26, wherein, if the selected exam item is determined to correspond to a practical exercise, then the act of presenting the selected exam item to the user further comprises displaying to the user information that is associated with the practical exercise, wherein the information describes a task associated with the exercise that the user is instructed to perform.

25

29. The computer program product of claim 26, wherein each of the one or more virtual machines comprises a disk image file, and the task requires the user to

30

modify a particular file stored within one of the one or more disk image files, and wherein the computer instructions for evaluating how well the user performed the practical exercise comprises computer instructions for examining the modifications made to the particular file to determine whether the particular file was modified correctly.

30. The computer program product of claim 29, wherein the act of evaluating how well the user performed the practical exercise comprises examining a file that the was not supposed to be modified in performing the practical exercise.